CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-070
NPDES NO. CA0038369

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

SOUTH BAYSIDE SYSTEM AUTHORITY
REDWOOD CITY, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter the Board) finds that:

1. South Bayside System Authority, hereinafter Discharger, submitted a report of waste discharge dated December 3, 1985 for reissuance of NPDES Permit No. CA0038369. Additional information was submitted by letters dated December 6, 1985 and September 25, 1987 at the request of the Board.

2. The Discharger presently discharges an average dry weather flow (ADWF) of about 19 million gallons per day (mgd) from its tertiary-level treatment plant which has a current dry weather design capacity of 24.0 mgd. Treatment facilities consist of primary clarifiers, fixed film reactors, aeration tanks, final clarifiers, dual media filters, and chlorination and dechlorination equipments. This plant treats domestic and industrial wastewater from Belmont, West Bay Sanitary District, Redwood City, and San Carlos. The treated wastewater is discharged into the deep water channel of lower San Francisco Bay, a water of the State and United States, at a point approximately 3.5 miles southerly from the San Mateo-Haywood Bridge through a submerged diffuser about 6800 feet offshore at a depth of 50 feet below the water surface (Latitude 37 deg., 33 min., 48 sec.; Longitude 122 deg., 12 min., 55 sec.). The tertiary-level wastewater treatment plant discharges about 2.5 miles from the Foster City shellfish beds. The discharge could affect viable shellfish beds in San Francisco Bay located within the vicinity of the Discharger's outfall.

3. The discharge is presently governed by Waste Discharge Requirements Order No. 84-6 which allows discharge into San Francisco Bay.

4. The Discharger has requested increases in authorized ADWF treatment plant capacity from 24.0 mgd to 26.0, 27.0, 28.0, and 30.0 mgd. This request is based on actual plant performance data and on committments to provide certain sewerage treatment facility improvements (stages 2-1, 2-2, 2-3, and 2-4). The Discharger proposes to make the following sewerage treatment facility improvements to provide the listed treatment capacity:

Stage	Improvements	Process Design ADWF Capacity	Overall Treatment Plant Design ADWF Capacity
2-1	Disinfection Facilities	30.0 mgd	26.0 mgd
2-2	Secondary Clarifier and Filter Press	30.0 mgd	27.0 mgd
2-3	Solids Digestion and Incineration	30.0 mgd	28.0 mgd
2-4	Dual Media Filtration	30.0 mgd	30.0 mgd

5. The United States Environmental Protection Agency (EPA) has an antidegradation policy as described in regulation 40 CFR 131.12. EPA guidance to implement 40 CFR 131.12 may require that an antidegradation analysis be made when an increase in wastewater discharge is proposed. An antidegradation policy was also adopted by the State Water Resources Control Board in Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). It provides conditions under which a change in water quality is allowable.

6. The Discharger has also requested permission to use the old sewage oxidation ponds at the SBSA site as a sludge treatment area.

7. The joint power agreement between the Cities of Belmont, Redwood City, and San Carlos and West Bay Sanitary District gives the Discharger legal authority and responsibility to require compliance with pretreatment standards for all major contributing industries.

8. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986, and the State Water Resources Control Board (SWRCB) approved it on May 21, 1987. Table 4-1 in the Basin Plan contains new effluent limitations for both shallow water and deep water dischargers. The dischargers who cannot comply with the new effluent limitations may propose alternate effluent limits following the criteria described in the Basin Plan. Intent of the discharger must have been indicated to the Regional Board by November 20, 1987. At that time, a schedule and plan for submitting proposals for alternate limits was also to have been provided to the Regional Board staff. The Discharger, in a letter dated November 20, 1987, indicated that it may not meet the cyanide effluent limit listed in Table 4-1 of the Basin Plan. The Discharger has proposed conducting a study to determine the effluent cyanide concentration that can be consistently met with the application of all reasonable treatment and control measures.

9. The Basin Plan contains water quality objectives for lower San Francisco Bay and contiguous waters. The beneficial uses of lower San Francisco Bay and contiguous waters are:

    Water Contact Recreation
    Non-contact Water Recreation
    Wildlife Habitat
    Preservation of Rare and Endangered Species
    Estuarine Habitat
    Fish Migration and Spawning
    Industrial Service Supply
    Shellfish Harvesting
    Navigation
    Commercial and Sport Fishing

10. The Regional Board's Shellfish Program identified major shellfish beds existing along the San Mateo - Foster City shoreline. During the summers of 1982, 1983, and 1985, some of these beds were opened for direct recreational harvesting. Stringent dry weather effluent limits are required to continue to protect this beneficial use.

11. Shellfish beds in this area are affected by overflows from the collection system and by other sources of contaminants, such as storm drains, creeks, and lagoon discharges and can be affected by the Discharger's effluent. During wet weather, receiving water coliform limits are frequently violated in these beds due to the presence of large volumes of contaminated surface runoff.

12. Protection of shellfish harvesting as a beneficial use during wet weather will often not be possible unless significant resources are devoted to improved control and/or treatment of contaminated runoff. Until such improvements are acheived, the quality of waters overlying the shellfish beds during wet weather will most often be controlled by the amount and type of runoff received, not the Discharger's tertiary quality effluent.

13. The Discharger, by reports dated February 18, 1983 and August 2, 1983, has requested revision of certain effluent limitations during both wet and dry weather. The request is based on limited data on local hydrodynamics, available shellfish resources, and degree of seasonal shellfish bed contamination by non-point sources. The Discharger also conducted special studies during 1984 and 1985 in conjunction with this Board, the Dept. of Fish and Game, and the Aquatic Habitat Program to monitor receiving water impacts during periods of operation under less stringent effluent guidelines contained in Order 84-6. The Discharger's 1984 and 1985 studies were inconclusive in justifying all revisions requested by the Discharger.

14. The Regional Board in Order No. 84-6 revised the Discharger's wastewater treatment requirements from tertiary-level requirements to advance secondary requirements during the wet season when beneficial uses would not be compromised further than they already are by stormwater runoff.

15. The State Department of Health Services (DOHS) approves relaxation of the Discharger's summer total coliform effluent limit to 23 MPN per 100 ml provided the Discharger continues to filter its effluent prior to discharge to San Francisco Bay.

16. The United States Environmental Protection Agency (EPA) opposes further relaxation of the Discharger's effluent BOD and Suspended Solids limits because such relaxation is prohibited under the anti-backsliding provision of Section 402(o) of the Clean Water Act.

17. The State Department of Fish and Game does not object to the higher dry weather coliform effluent limit in Finding #15 provided the Discharger continues to filter its effluent prior to discharge to San Francisco Bay.

18. SBSA has agreed to drop its request for relaxation of BOD, TSS, and wet weather coliform limits and has agreed to continue using its filters prior to discharge to San Francisco Bay.

19. During wet weather, raw sewage overflows may occur when sewer system and pump station capacity is exceeded as a result of excessive infiltration or inflow of rainfall runoff. Any such overflow is a violation of the requirements of this Order. Overflows may also occur as a result of pump station failures.

20. An Operation and Maintenance Manual is maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operating strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.

21. The Discharger has implemented and is maintaining an EPA approved Local Pretreatment Program for source control and application of pretreatment standards in accordance with Regional Board Order No. 84-60.

22. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

23. The Discharger and interested agencies and persons have been notified of the Board's intent to revise and reissue requirements for the existing discharge and have been provided with the opportunity for a public hearing and opportunity to submit their written views and recommendations.

24. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge at any point at which the wastewater does not recieve an initial dilution of at least 10:1 is prohibited.

2. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any of the collection or transport system or pump stations tributary to the treatment plant or outfall is prohibited.

3. The average dry weather flow shall not exceed 24.0 mgd. Average shall be determined over three consecutive dry weather months each year. If the Discharger submits environmental assessment documents in compliance with CEQA requirements and submits engineering reports for increased effluent discharge to satisfy requirements and demonstrates adequate performance, reliability, and capacity of the completed improvements (Stages 2-1, 2-2, 2-3, and 2-4) to the satisfaction of the Executive Officer, ADWF treatment plant capacity may be increased up to 30.0 mgd in accordance with Finding #4 above. The engineering reports must demonstrate compliance with the antidegradation policy pursuant to EPA regulations 40 CFR 131.12 (federal antidegradation policy) and the State Water Resources Control Board Resolution No. 68-16.

B. Effluent Limitations

1(a). Effluent discharged shall not exceed the following limits except as provided in 1(b):

Constituents	Units	Monthly Average	Weekly Average	Maximum Daily	Instantaneous Maximum
a. Settleable Matter	ml/l-hr	0.1	---	---	0.2
b. $CBOD_5$	mg/l	8	12	16	---
c. Total Suspended Solids	mg/l	8	12	16	---
d. Oil & Grease	mg/l	10	---	20	---
e. Total Chlorine Residual (1)	mg/l	---	---	---	0.0
f. Turbidity	NTU	10	---	20	---

1(b). During the months of October through April inclusive the following effluent limitations shall apply:

Constituents	Units	Monthly Average	Weekly Average	Maximum Daily	Instantaneous Maximum
a. Settleable Matter	ml/l-hr	0.1	---	---	0.2
b. $CBOD_5$	mg/l	16	24	32	---
c. Total Suspended Solids	mg/l	16	24	32	---
d. Oil & Grease	mg/l	10	---	20	---
e. Total Chlorine Residual (1)	mg/l	---	---	---	0.0
f. Turbidity	NTU	20	---	40	---

(1) Requirement defined as below the limit of detection in standard test methods.

2. The arithmetic mean of the carbonaceous biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits (1):

Constituents	Units	Daily Maximum
a. Arsenic	ug/l	200
b. Cadmium	ug/l	30
c. Chromium(VI) (2)	ug/l	110
d. Copper	ug/l	200
e. Lead	ug/l	56
f. Mercury	ug/l	1
g. Nickel	ug/l	71
h. Silver	ug/l	23
i. Zinc	ug/l	580
j. Cyanide	ug/l	25
k. Phenolic Compounds	ug/l	500
l. Polycyclic Aromatic Hydrocarbons (3)	ug/l	150

(1) These limits are based on a combination of fresh and salt water quality objectives, technological acheivability, limits of detection, and limited allowance for dilution. These limits are intended to be achieved through a combination of Best Available Technology, secondary treatment, source control, and application of pretreatment standards.

(2) The Discharger, at its option, may meet this limit as total chromium.

(3) As identified by EPA Method 610. If a discharge exceeds the limit for PAHs, concentrations of individual constituents should be reported.

6. The moving median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 23 coliform organisms per 100 milliliters. Any single sample shall not exceed 240 MPN/100 ml.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulated matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, taste, odor, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on

aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved oxygen	5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved sulfide	0.1 mg/l maximum
c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized ammonia	0.025 mg/l as N Annual Median 0.4 mg/l as N Maximum

3. The discharger shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Sludge Requirements

1. Permanent sludge storage or disposal activities are not authorized by this permit. A Report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencing any such activity.

2. The Discharger shall provide an acceptable plan and receive approval from the Executive Officer for using the old sewage oxidation ponds as sludge treatment area before such usage begins.

3. The treatment, disposal, storage, or processing of sludge shall not create a pollution or nuisance as defined in Section 13050(l) and (m) of the California Water Code.

4. The treatment, disposal, storage, or processing of sewage sludge shall not cause waste material to be in any position where it is, or can be, carried from the sludge treatment, disposal, storage, or processing site and be deposited in waters of the State.

5. Any sludge treatment, disposal, storage, or processing site shall have facilities adequate to divert surface runoff from adjacent areas, to

protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.

6. The direct or indirect discharge of sludge waste to waters of the State is prohibited.

7. All sludge must be removed from the oxidation ponds and/or sludge drying beds by October 31st of each year.

E. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 84-6. Order No. 84-6 is hereby rescinded.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply:

   Mass Emission Limit (in lbs/day or kg/day) = Concentration Limit in mg/l x (8.34 or 3.79) x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The Discharger shall document compliance with Prohibition A.2 by preparing a Wet Weather Flow Management Plan to the satisfaction of the Executive Officer.

4. The Discharger shall document compliance with Provision E.3 and with the long term goal of providing secondary treatment for all flows and eliminating all overflows according to the following schedule:

Task	Compliance Date	Date Report Due
a. Submit Wet Weather Flow Management Plan, acceptable to the Executive Officer, for sewer maintenance, repair, and replacement and other facility construction to reduce, control, or eliminate excessive wet weather flows and overflows. Quarterly status reports shall be submitted during development of this plan	Sept. 1, 1989	September 15, 1988 December 15, 1988 March 15, 1989 June 15, 1989 (Quarterly Status Reports) September 15, 1989 (Final Report)
b. Submit annual progress reports quantifying any sewerage system improvements and their impacts on compliance, wet weather flow		September 15 (each year from 1989 until full compliance is acheived)

quantity, overflow/bypass frequency, and summarizing proposed actions for the coming year.

Nothing in this schedule shall eliminate the need for compliance with secondary treatment for all discharges.

5. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provision E.6 below.

6. Compliance with Effluent Limitation B.5.j. or any amendments to Effluent Limitation B.5.j. shall be acheived according to the following time schedule:

Task	Compliance Date
a. Complete an investigation to determine if all sources of cyanide are being controlled throught the application of all reasonable treatment and soure control measures and submit a report on the findings. If the report determines that all sources of cyanide are not being controlled throught the application of all reasonable treatment and source control measures, then the report shall include a schedule of actions along with milestone dates, acceptable to the Board's Executive Officer which will assure that all sources of cyanide are being controlled through the application of all reasonable treatment and source control measures.	Sept. 1, 1988
b. Full compliance with Effluent Limitation B.5.j. or submittal of proposed alternative cyanide effluent limit. If the Discharger is proposing an alternative cyanide effluent limit, then the Discharger must complete an investigation and submit a report in conformance with the 1986 Basin Plan. The report shall include an assessment of the impact of the proposed alternate cyanide effluent limit on the beneficial uses of the receiving water, and must include a demonstration that the costs of additional measures do not bear a reasonable relationship to the level of beneficial uses protected by such additional measures. The report shall also include a schedule of specific control strategies along with milestone dates, acceptable to the Board's Executive Officer, for the control of non-point sources of pollution (including urban runoff) within or upstream from the Discharger's receiving water segment in order to reduce uncertainty regarding the Discharger's contribution to the total pollutant load.	April 1, 1989
c. Full compliance with the cyanide effluent limit listed under Effluent Limitation B.5.j. of this Order	July 1, 1989

or an alternate to Effluent Limitation B.5.j. which is approved by the Board.

d. Submit annual progress reports quantifying any improvements in the amount of cyanide reaching the Discharger's receiving water segment from the Discharger's effluent and/or from non-point sources of pollution.	July 1 (each year from 1989 through 1993)

7. The Discharger shall submit to the Board, on or before each compliance report date, a report detailing its compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Board by letter when it has returned to compliance with the time schedule.

8. The Discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year. Documentation of operator input and review should accompany each annual update.

9. The Discharger shall review and update annually its contingency plan as required by Board Resolution No. 74-10. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year. The discharge of pollutants in violation of this Order where the Discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

10. The Discharger shall maintain its pretreatment program in accordance with Regional Board Order No. 84-60 and all amendments that may be made to the Order.

11. The Discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended.

12. The Discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements," dated December, 1986.

13. This Order expires May 18, 1993. The Discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

14. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental

Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on May 18, 1988.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements, December 1986
Self-Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

SOUTH BAYSIDE SYSTEM AUTHORITY

SAN MATEO COUNTY

NPDES NO. CA 0038369

ORDER NO. 88-070

CONSISTS OF

PART A, dated December 1986

AND

PART B

PART B

SOUTH BAYSIDE SYSTEM AUTHORITY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT AND INTAKE

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present, preceding any phase of treatment, and exclusive of any return flows or process sidestreams.

B. EFFLUENT

Station	Description
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present (may be the same as E-001-D)
E-001-D	At any point in the disinfection facilities for Waste E-001, at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

All C Stations shall be sampled during the period 1 hour preceding to 1 hour following low slack water. During the period preceding low slack water, samples will be collected commencing at the geometric center of the diffuser and at 100 yards, 200 yards, 300 yards, 500 yards, and 1000 yards along a bearing of 325° True N from the geometric center of the diffuser. During the period following low slack water, samples will be collected commencing at the geometric center of the diffuser and at 100 yards, 200 yards, 300 yards, 500 yards, and 1000 yards along a bearing of 145° True N from the geometric center of the diffuser.

Station	Description
C-R	At a point in San Francisco Bay, located in the main ship channel not closer than 3,000 feet easterly of the geometric center of the outfall.

C-1	At a point 100 yards from the geometric center of the outfall diffuser bearing 325 degrees True North.
C-2	At a point 200 yards from the geometric center of the outfall diffuser bearing 325 degrees True North.
C-3	At a point 300 yards from the geometric center of the outfall diffuser bearing 325 degrees True North.
C-4	At a point 500 yards from the geometric center of the outfall diffuser bearing 325 degrees True North.
C-5	At a point 1000 yards from the geometric center of the outfall diffuser bearing 325 degrees True North.
C-6	At a point 100 yards from the geometric center of the outfall diffuser bearing 145 degrees True North.
C-7	At a point 200 yards from the geometric center of the outfall diffuser bearing 145 degrees True North.
C-8	At a point 300 yards from the geometric center of the outfall diffuser bearing 145 degrees True North.
C-9	At a point 500 yards from the geometric center of the outfall diffuser bearing 145 degrees True North.
C-10	At a point 1000 yards from the geometric center of the outfall diffuser bearing 145 degrees True North.
C-11	At a point at the geometric center of the outfall diffuser.

D. LAND OBSERVATIONS

Station	Description
P-1 through P-'n'	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 100 feet. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

Station	Description
OV-1 through OV-'n'	Bypass or overflows from manholes, pump stations, or collection systems.

NOTE: Initial SMP report to include map and description of each known bypass or overflow location, and report on pump station alarms, pumping capacity, upstream storage capacity and bypass location.

REPORTING - Shall be submitted monthly and include date, time, quantity, and period of each overflow or bypass and measures taken or planned to prevent future occurrences (see Part A, Section G.2.)

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given as Table I.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 88-070.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.

Roger B. James

ROGER B. JAMES
Executive Officer

Effective Date MAY 18 1988

Attachments:
Table I and Legend for Table

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1)

Sampling Station	A-001		E-001			E-001-D			All C Sta.	All P Sta.	Misc Obrv	All OV Sta.	
TYPE OF SAMPLE	G	C-24	G (3)	(3) C-24	Cont	G	C-24	Cont	G (9)	O	O	O	
Flow Rate (mgd)								Cont					
CBOD, 5-day, 20°C, or COD (mg/l & kg/day)		2/W		5/W									
Chlorine Residual & Dosage (mg/l & kg/day)						H or	Cont	(5)					
Settleable Matter (ml/l-hr. & cu. ft./day)			D										
Total Suspended Matter (mg/l & kg/day)		2/W		5/W									
Oil and Grease (mg/l & kg/day)			M (2)										
Coliform (Total or Fecal) (MPN/100 ml) per req't						5/W			M				
Fish Tox'y 96-hr. 50 % Surv'l in undiluted waste	(6)							M (7)					
Ammonia Nitrogen (mg/l & kg/day)						D (7)			M				
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (Nephelometric Turbidity Units)				5/W					M				
pH (units)			D			D (7)			M				
Dissolved Oxygen (mg/l and % Saturation)			D			D (7)			M				
Temperature (°C)			D			D (7)			M				
Apparent Color (color units)									M				
Secchi Disc (inches)									M				
Sulfides (if DO<5.0 mg/l) Total & Dissolved (mg/l)			D						M				
Arsenic (mg/l & kg/day)				M (4)									
Cadmium (mg/l & kg/day)				W									
Chromium, Total (mg/l & kg/day)				W									
Copper (mg/l & kg/day)				W									
Cyanide (mg/l & kg/day)				M (4)									
Silver (mg/l & kg/day)				W									
Lead (mg/l & kg/day)				W									

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001			E-001-D			All C Sta.	All P Sta.	Misc. Obrv.	All OV Stations	
TYPE OF SAMPLE	G	C-24	G	C-24	Cont.	G	C-24	Cont.	G(9)	O(11)	O	O(10)	
Mercury (mg/l & kg/day)				M(4)									
Nickel (mg/l & kg/day)				W									
Zinc (mg/l & kg/day)				W									
PHENOLIC COMPOUNDS (mg/l & kg/day)				M(4)									
All Applicable Standard Observations									M	E		E	
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)													
Un-ionized Ammonia as N (mg/l)									M				
Polycyclic Aromatic Hydrocarbons (mg/l & kg/day)				M(4)									
Dewatered Sludge											D(8)		

LEGEND FOR TABLE

TYPES OF SAMPLES

- G = grab sample
- C-24 = composite sample - 24-hour
- C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
- Cont = continuous sampling
- DI = depth-integrated sample
- BS = bottom sediment sample
- O = observation

TYPES OF STATIONS

- I = intake and/or water supply stations
- A = treatment facility influent stations
- E = waste effluent stations
- C = receiving water stations
- P = treatment facilities perimeter stations
- L = basin and/or pond levee stations
- B = bottom sediment stations
- G = groundwater stations
- OV = overflows and bypasses
- Misc. Obrv. = miscellaneous observations

FREQUENCY OF SAMPLING

- E = each occurence
- H = once each hour
- D = once each day
- W = once each week
- M = once each month
- Y = once each year
- 2/H = twice per hour
- 2/W = 2 days per week
- 5/W = 5 days per week
- 2/M = 2 days per month
- 2/Y = once in March and once in September
- Q = quarterly, once in March, June, Sept. and December
- 2H = every 2 hours
- 2D = every 2 days
- 2W = every 2 weeks
- 3M = every 3 months
- Cont = continuous

FOOTNOTES

1/ During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD and Total Suspended Solids (Influent and Effluent, for the duration of the bypass or 24 hours, whichever is shorter.)

2. Grab samples for Total Coliform, Settleable Matter, Oil and Grease, and chlorine residual (continuous or every two hours).

3. Continuous monitoring of flow.

2/ Oil and Grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day with each grab being collected in a glass container and analyzed separately. Results shall be expressed as a weighted average of the 3 values, based upon the instantaneous flow rates occurring at the time of each grab sample.

The 3 grab samples may be combined and analyzed as a composite sample after submittal of data acceptable to the Executive Officer that the two techniques are equivalent. In the event that sampling for oil and grease once every two weeks or less frequently shows an apparent violation of the waste discharge permit 30-day average limitation (considering the results of one or two day's sampling as a 30-day average), then the sampling frequency shall be increased to weekly so that a true 30-day average can be computed and compliance can be determined.

3/ Grab samples shall be taken on day(s) of composite sampling.

4/ If any sample is in violation of limits, sampling shall be increased for that parameter to weekly until compliance is demonstrated in two successive samples.

5/ Data shall be reported using forms provided or approved equivalent. Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.

6/ Compliance with the effluent toxicity requirement shall be determined using two test species in parallel flow-through bioassays. One shall be three-spine stickleback, and the other shall be either rainbow trout or fathead minnow.

7/ These parameters shall be tested for on the same sample(s) used for the bioassay(s) prior to starting the flow-through bioassay(s) and at intervals of 24, 48, 72, and 96 hours after starting the flow-through bioassay(s).

8/ Daily records shall be kept of the quantity and solids content of dewatered sludge disposed of and the location of disposal.

9/ Sampling shall be coordinated to be on the same date and approximate time as for 1) the City of San Mateo and the North Bayside System Unit receiving water monitoring, and 2) routine grab and composite effluent monitoring.

10/ Regional Board and San Mateo County Health Department staff shall be immediately notified by telephone of any bypass or overflow that may affect shellfish beds during periods when such beds are legally open for harvesting.

11/ The Regional Board shall be notified by telephone of any odor complaints.